

Figure Suppl. 1. Echocardiographic assessment of pulmonary hemodynamics and RV function. Representative PA Doppler waveforms in normal (A) and PH (B) rats indicating PAAT and PAET measurements. Representative M-mode tracings of RVWTd in control (C) and PH (D) rats. Representative M-mode tracings of TAPSE in control (E) and PH (F) rats.

Figure Suppl. 2. A. RV/BW measurements for normoxic, hypoxic, and MCT rats, n= 8-13 per group. B. Correlation between RVWTd and RV/BW ($r= 0.519$, $p=0.007$), n=12-13 per group. C. Correlation between PAAT/ET and RV/BW ($r= - 0.677$, $p<0.0001$), n=9-15 per group. Circles reflect control animals, squares hypoxic and triangles MCT animals, *** = $p<0.001$ compared to controls. Dashed lines represent 95% confidence intervals (B,C). D. ROC curve of PAAT measurement accuracy in predicting an $RVSP\geq 35.5$. The indicated cutoff value of $PAAT\leq 19$ ms predicts an $RVSP\geq 35.5$ mmHg with 64% sensitivity and 90% specificity (AUC=0.6885) E. ROC curve of RVWTd measurement accuracy in predicting an $RV/BW\geq 0.81$ with 68% sensitivity and 72% specificity (AUC=0.7197).

Figure Suppl. 3. TAPSE measurements for control and PH rats in the derivation (A) and validation (B) phase respectively. Each data point represents one animal, circles reflect control animals, squares hypoxic and diamonds SUHx animals, **= $p<0.01$, *** = $p<0.001$ compared to normoxic or vehicle-treated controls.

Figure Suppl. 4. A. Validation phase ROC curve of $PAAT/ET\leq 0.25$ measurement accuracy in predicting PH with a 67% sensitivity and 100% specificity (AUC=0.9). B. ROC curve of $RVWTd\geq 1.03$ mm measurement accuracy in predicting PH with 92% sensitivity and 100% specificity

(AUC=0.9930).